

INTEGRATED CIRCUIT IMMUNITY

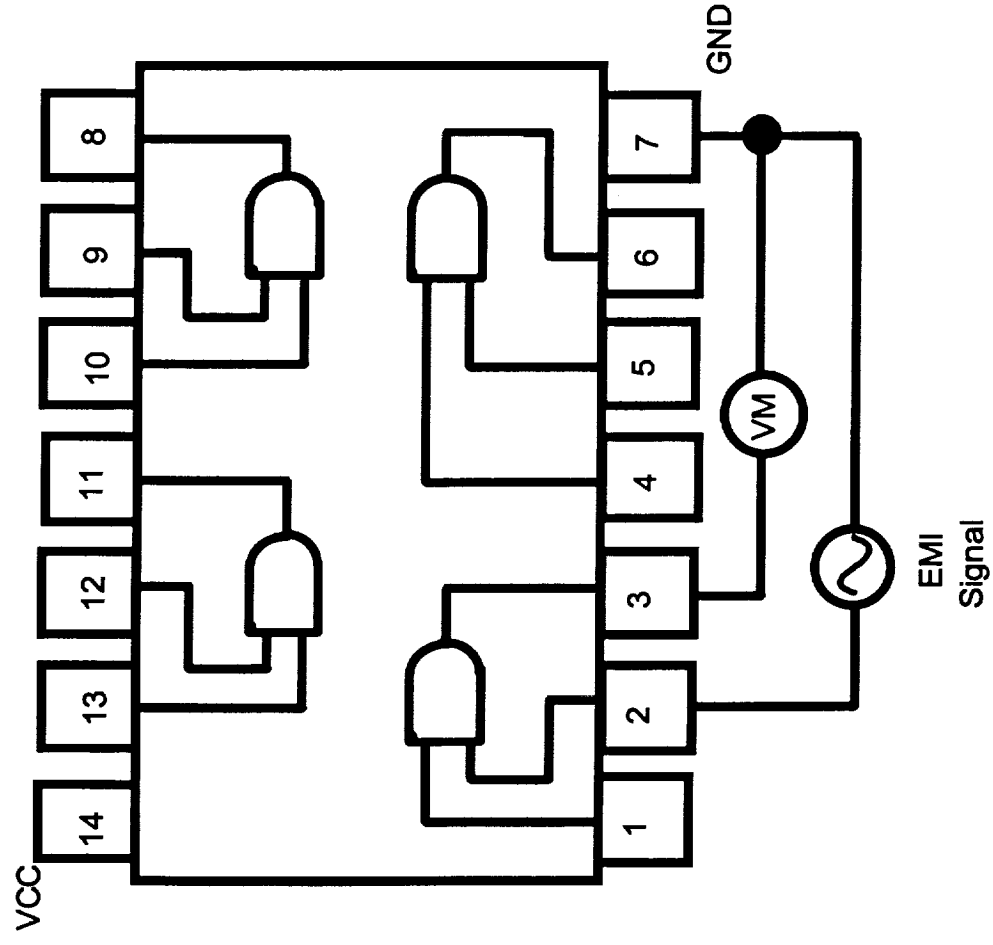
DOD E³ Program Review
11-14 April 2000

NAS8-98217

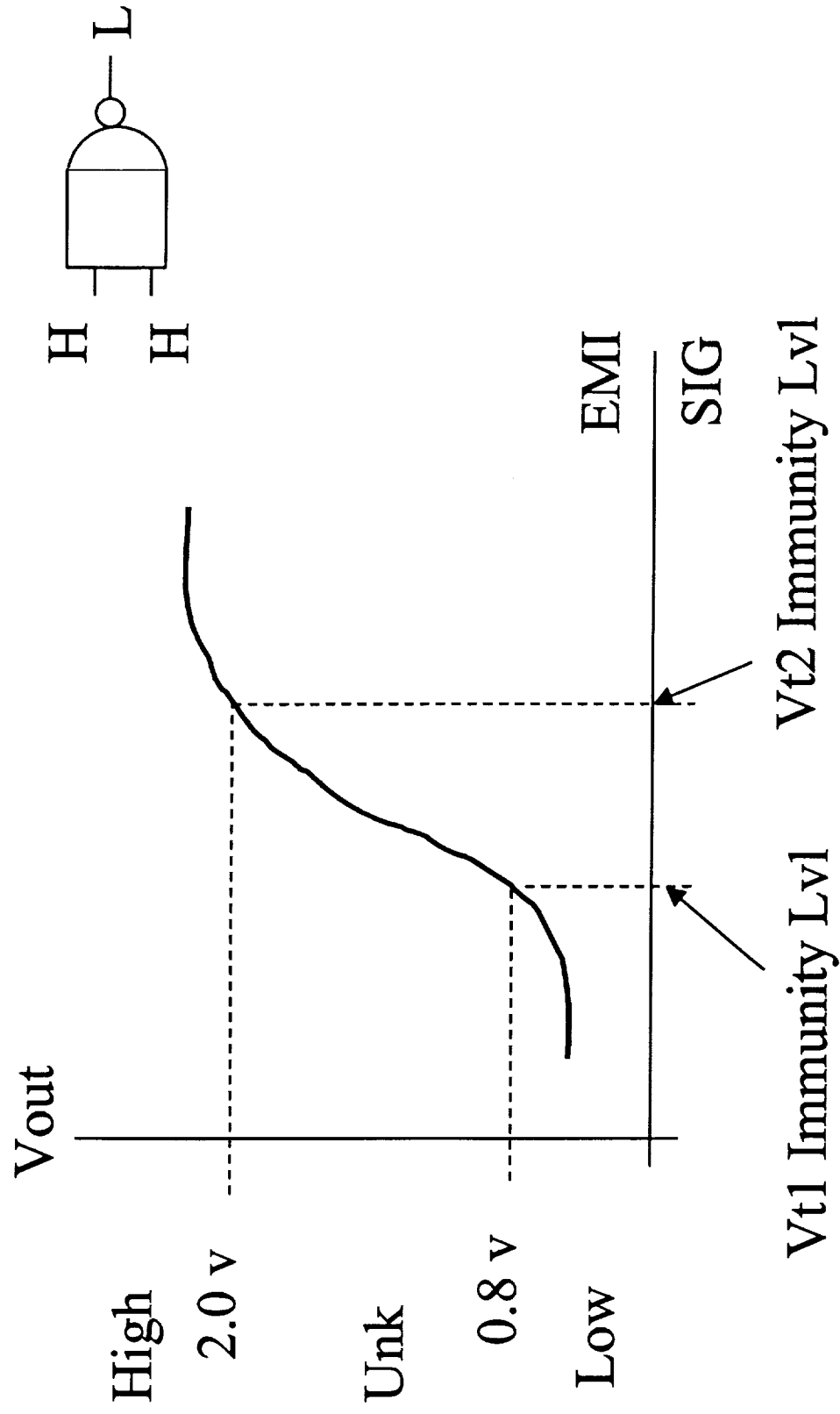
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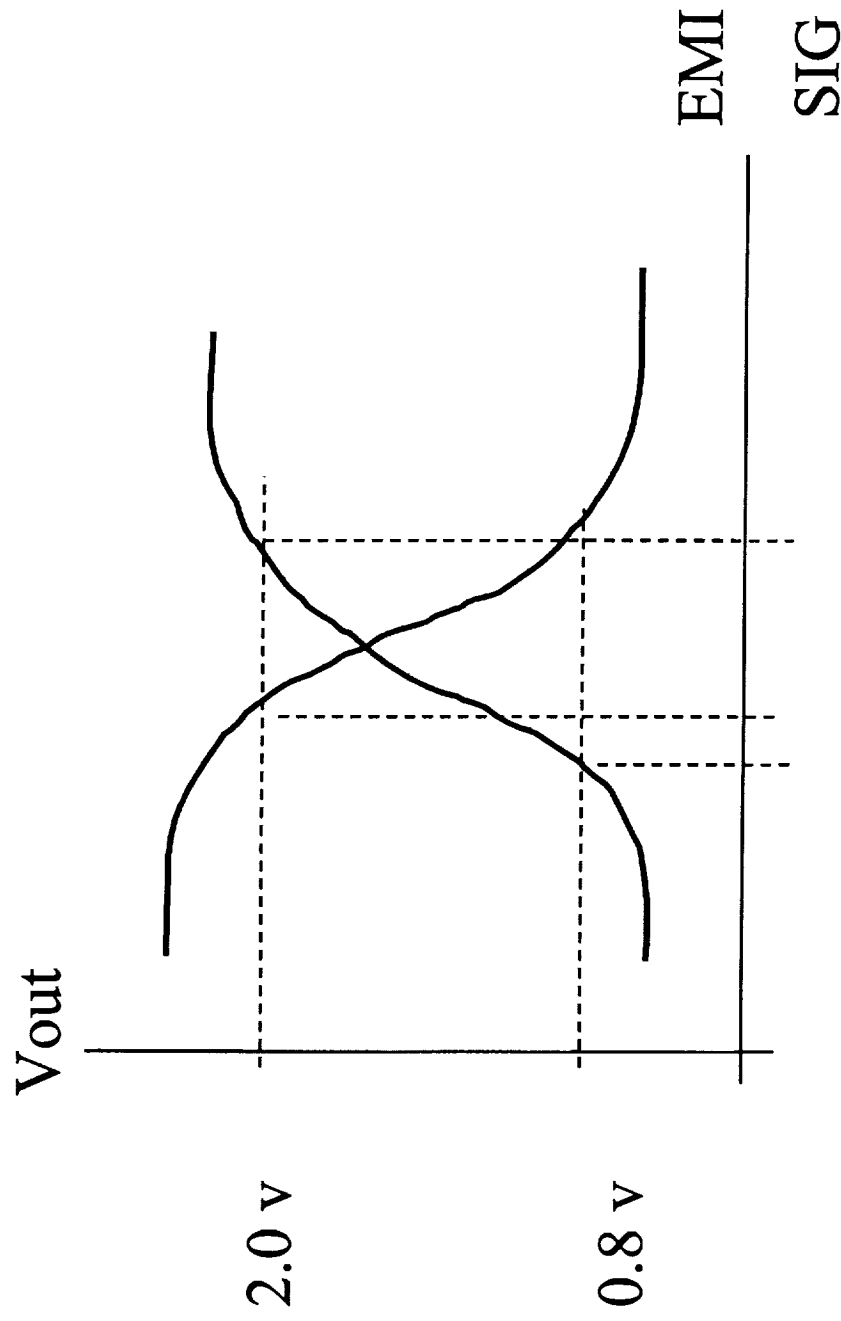
EMI IMMUNITY TESTING



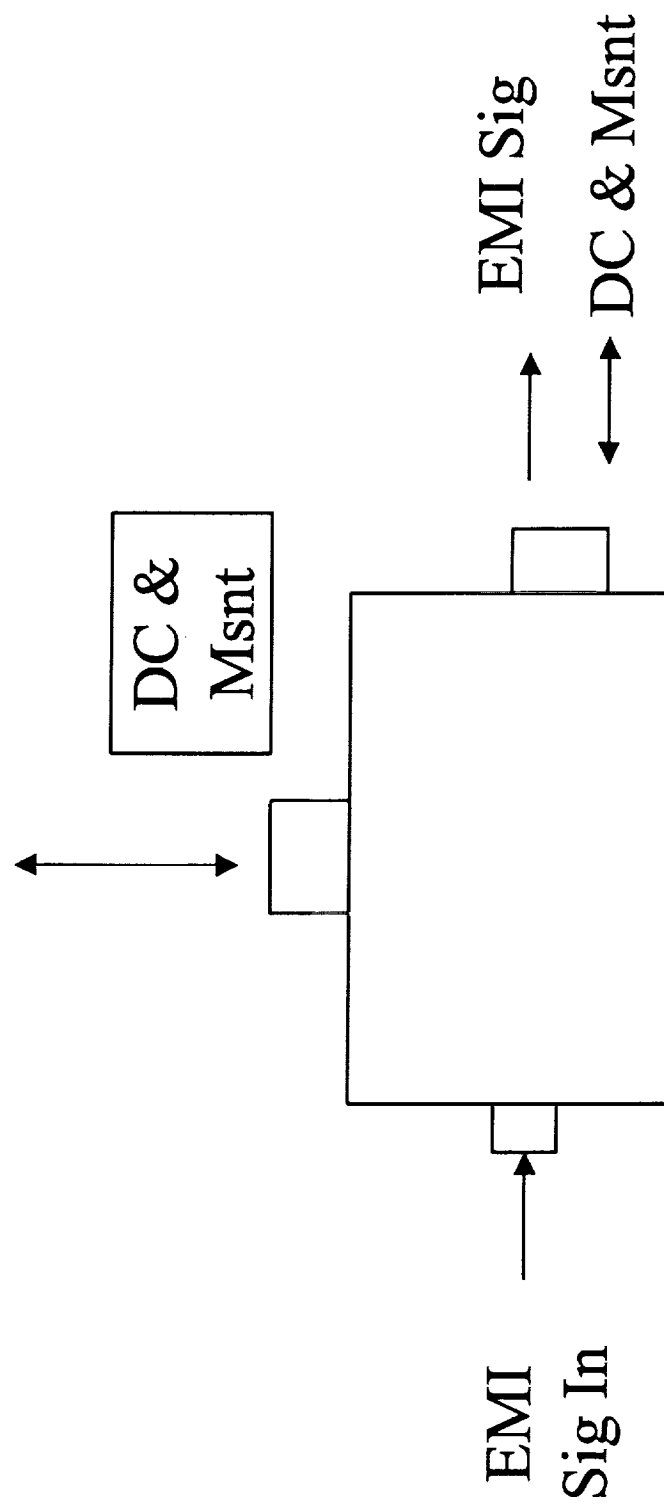
THRESHOLD DEFINITION



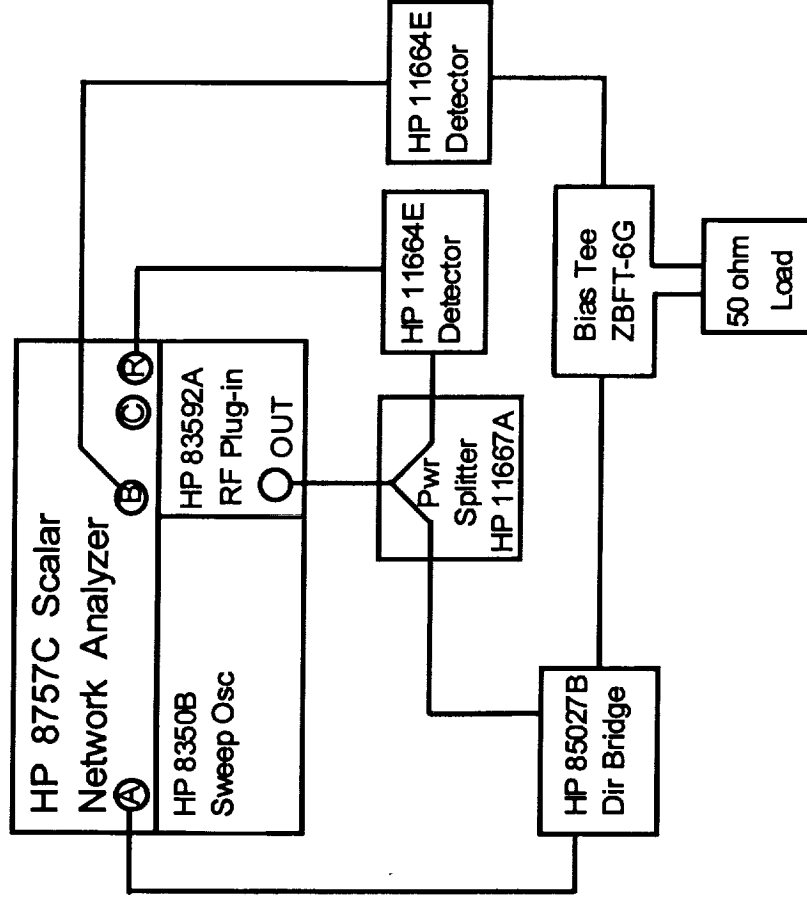
THRESHOLD DEFINITION



BIAS TEE FUNCTION

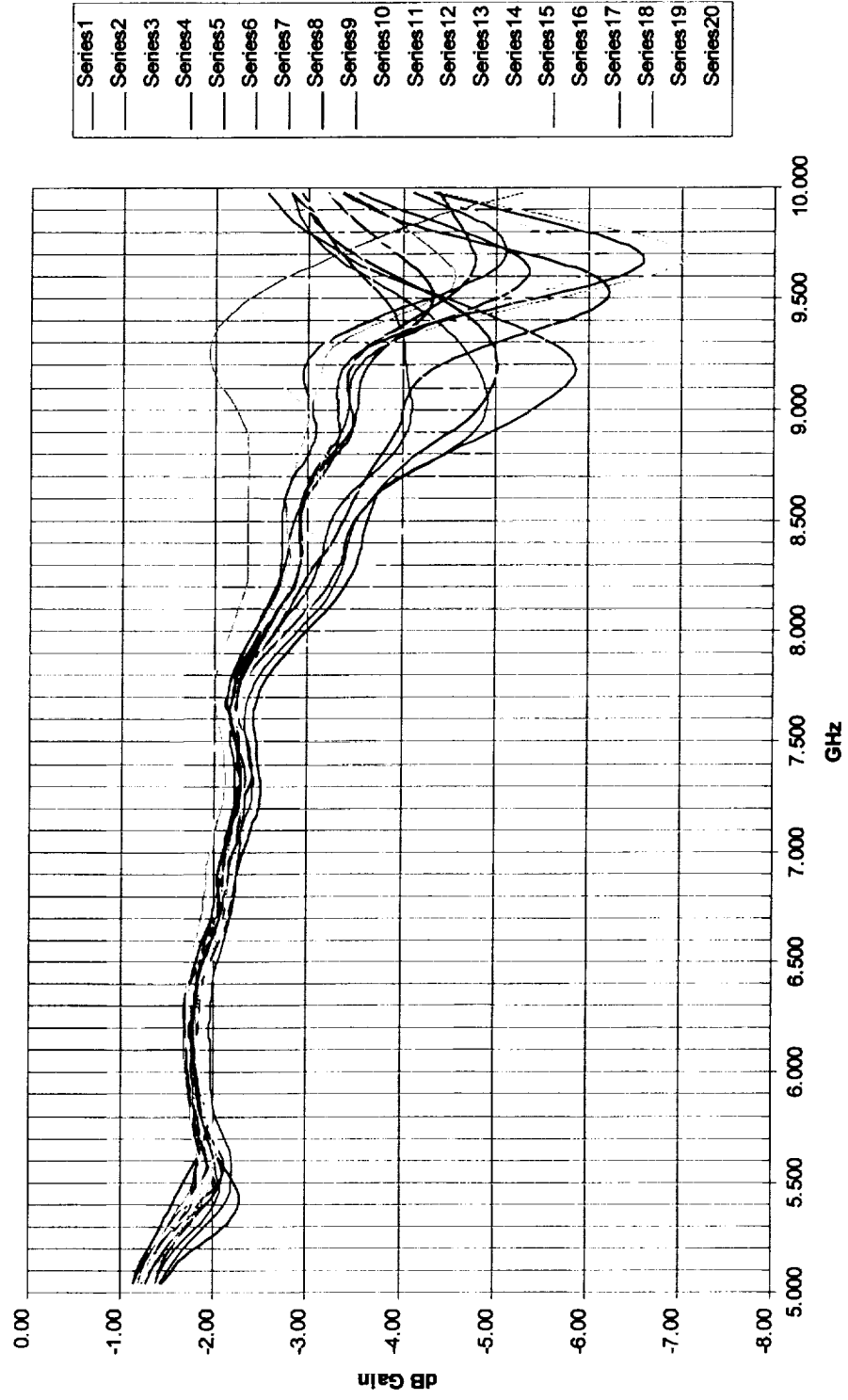


BIAS TEE CALIBRATION SET-UP

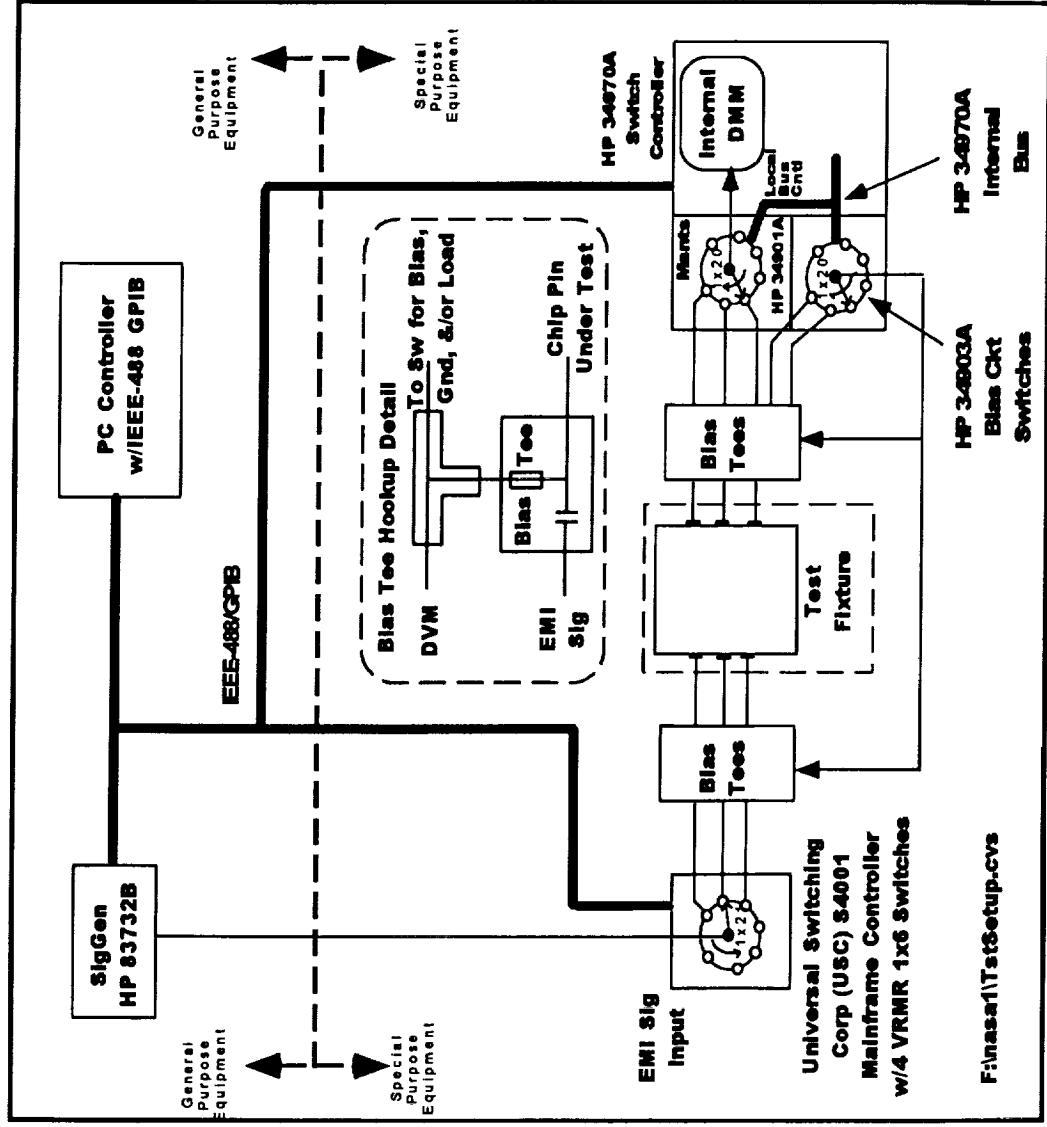


ZBFT-6G, S/N 1-20

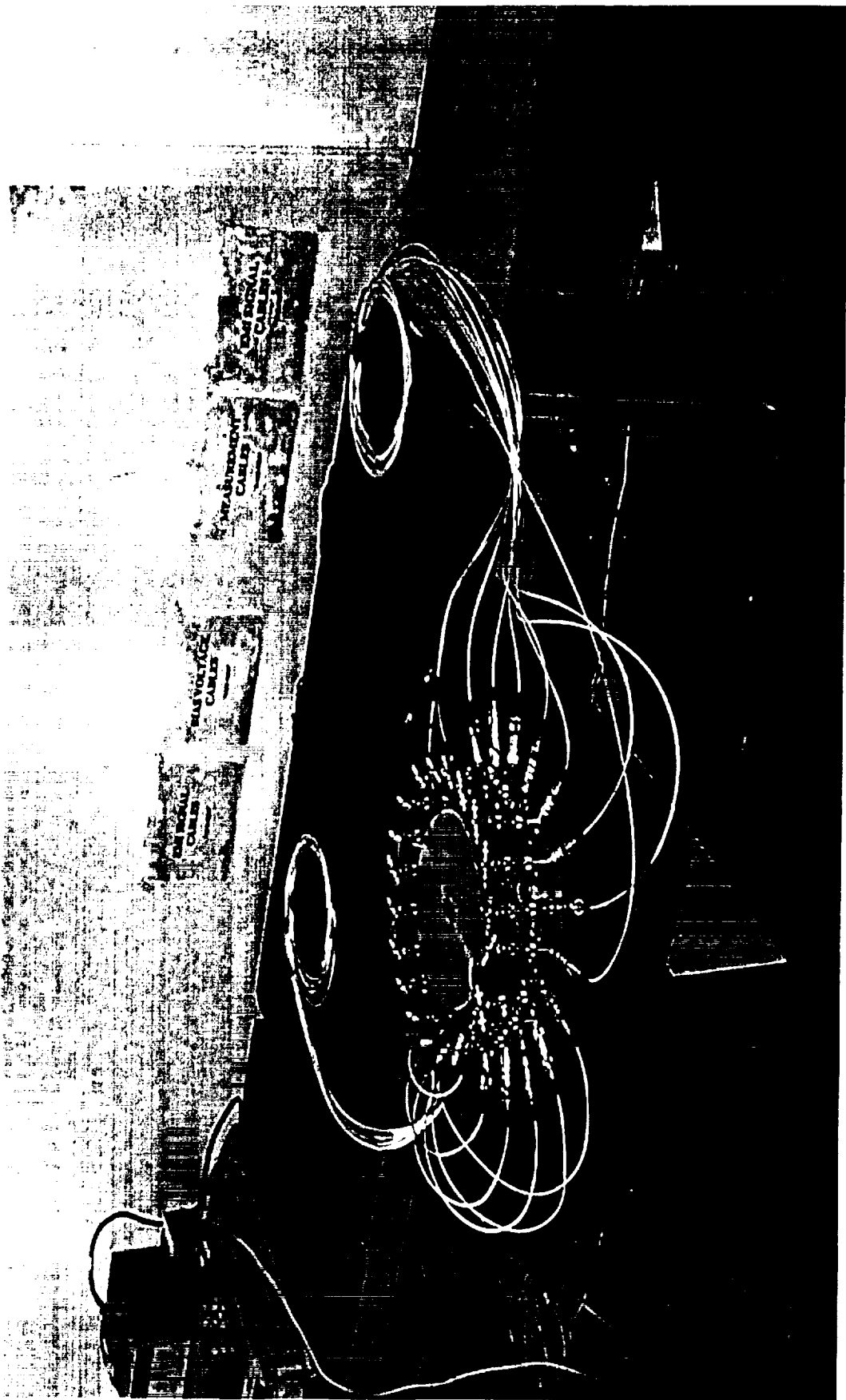
ZBFT-6G, S/N 1-20



TEST SET-UP

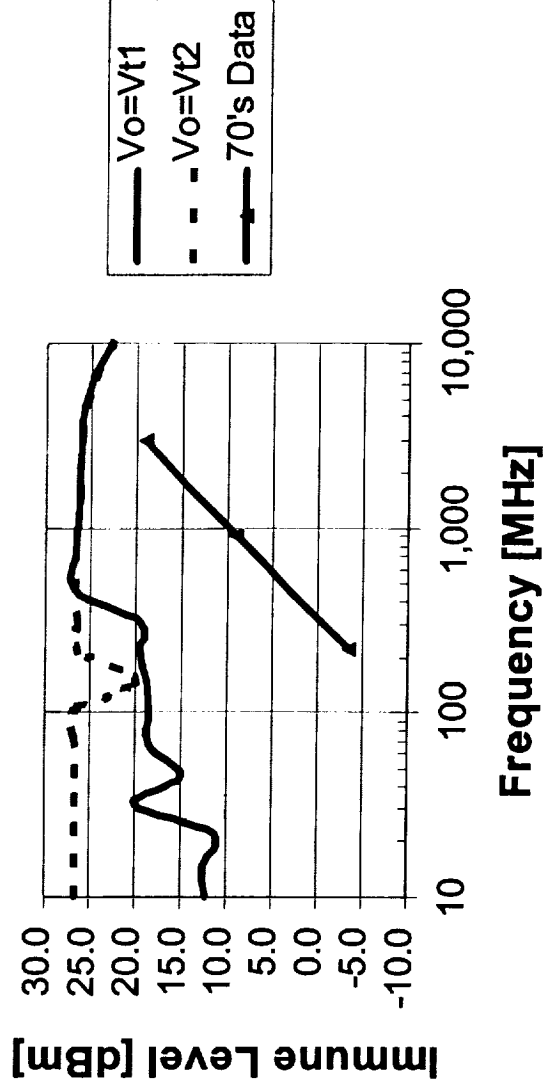


EDM TEST FIXTURE



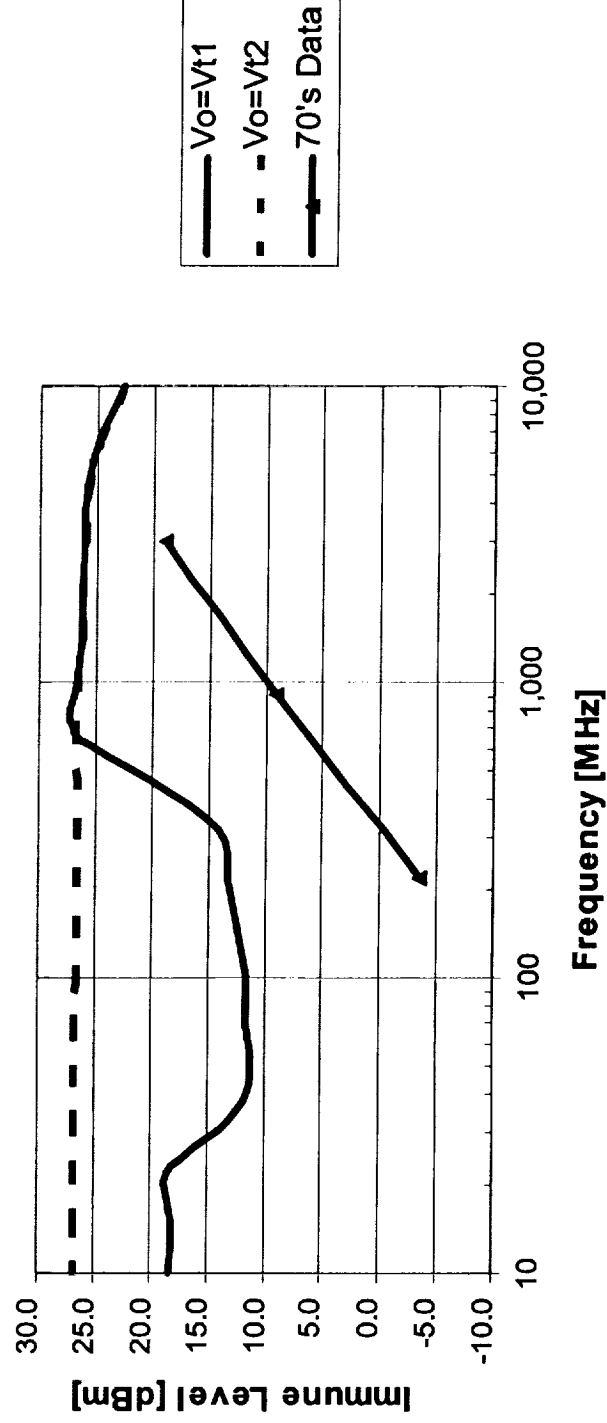
EMI IMMUNITY LEVELS

Chart 1. EMI IMMUNITY LEVEL
7400 NAND GATES



EMI IMMUNITY LEVELS

Chart 2. EMI IMMUNITY LEVEL
74ALS00 NAND GATES



NAND vs. AND GATE IMMUNITY

Chart 1. EMI IMMUNITY LEVEL
7400 NAND GATES

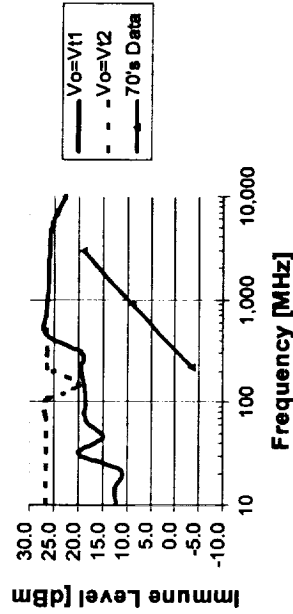


Chart 2. EMI IMMUNITY LEVEL
74ALS00 NAND GATES

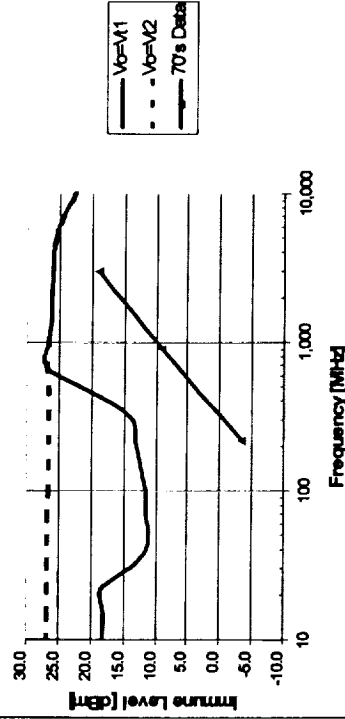


CHART 3. EMI IMMUNITY
74LS00 NAND GATES

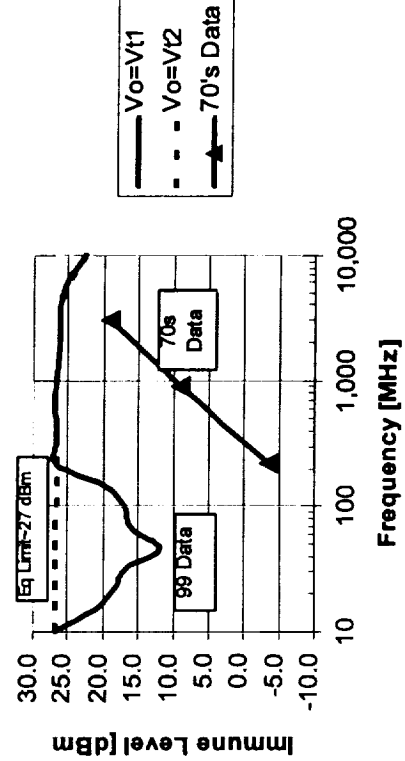
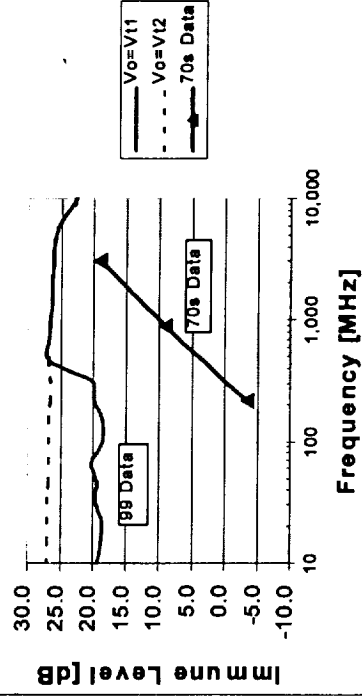


Chart 4. EMI IMMUNITY LEVEL
7408 AND GATES



TTL vs. LS IMMUNITY LEVELS

Chart 5. EMI IMMUNITY LEVEL
7402 POS NOR GATES

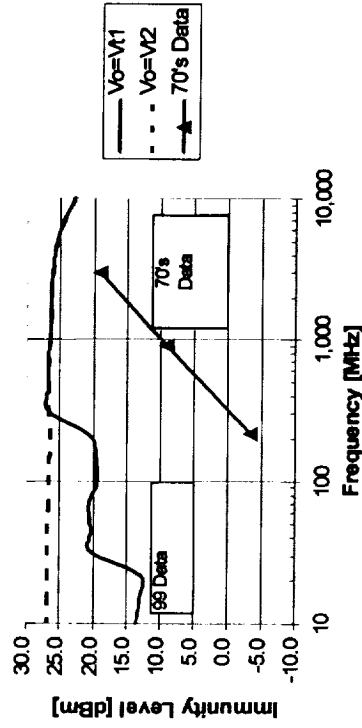


Chart 6. EMI IMMUNITY LEVEL
74LS02 POS NOR GATES

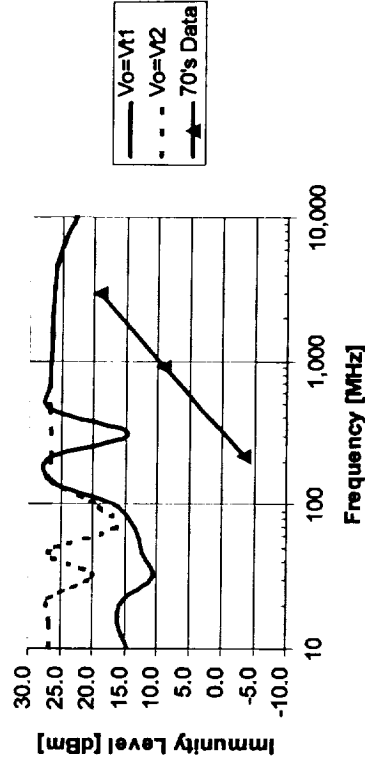


Chart 7. EMI IMMUNITY LEVEL
7404 TOTEM POLE INVERTER

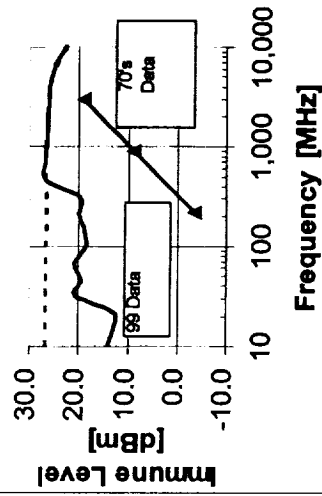
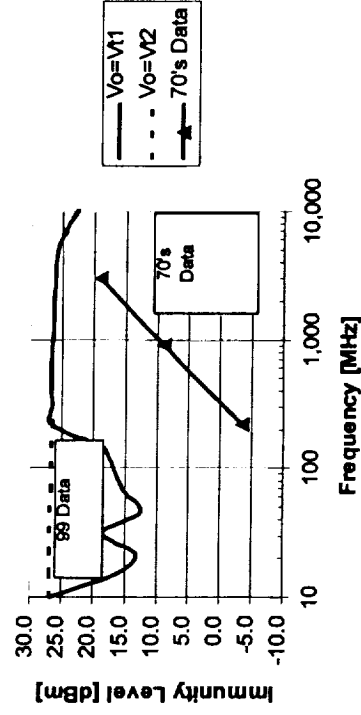


Chart 8. EMI IMMUNITY LEVEL
74LS04 TOTEM POLE INVERTER



TP vs. OC IMMUNITY LEVELS

Chart 7. EMI IMMUNITY LEVEL
7404 TOTEM POLE INVERTER

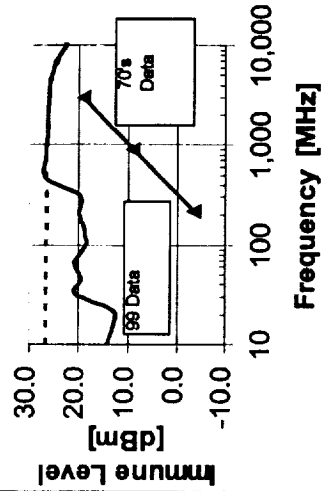


Chart 8. EMI IMMUNITY LEVEL
74LS04 TOTEM POLE INVERTER

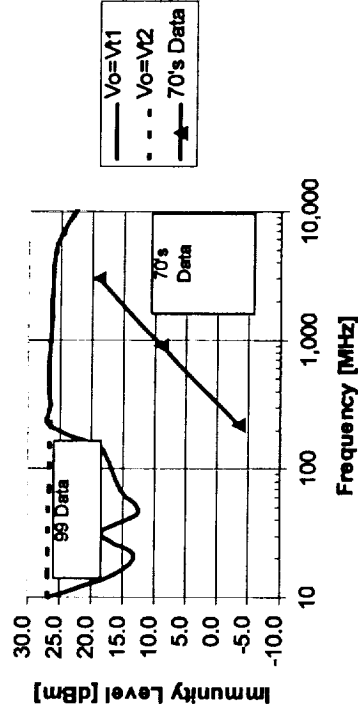


Chart 9. EMI IMMUNITY LEVEL
7405 OPEN COLLECTOR INVERTER

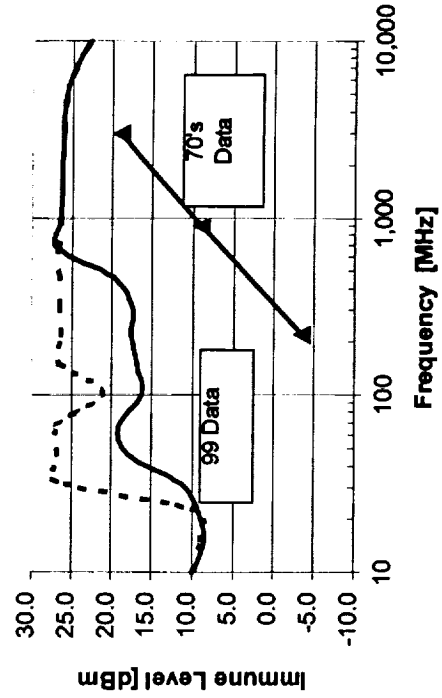
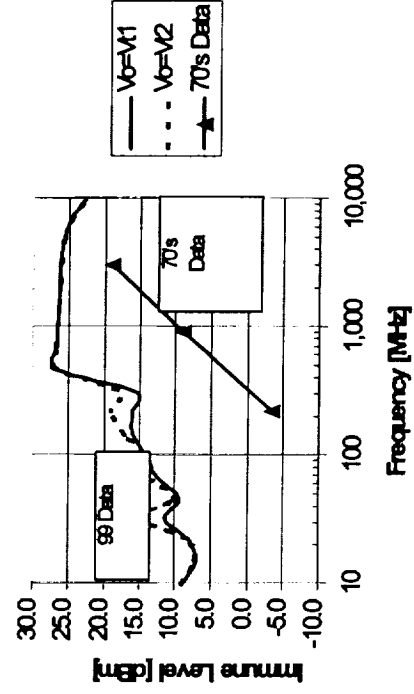
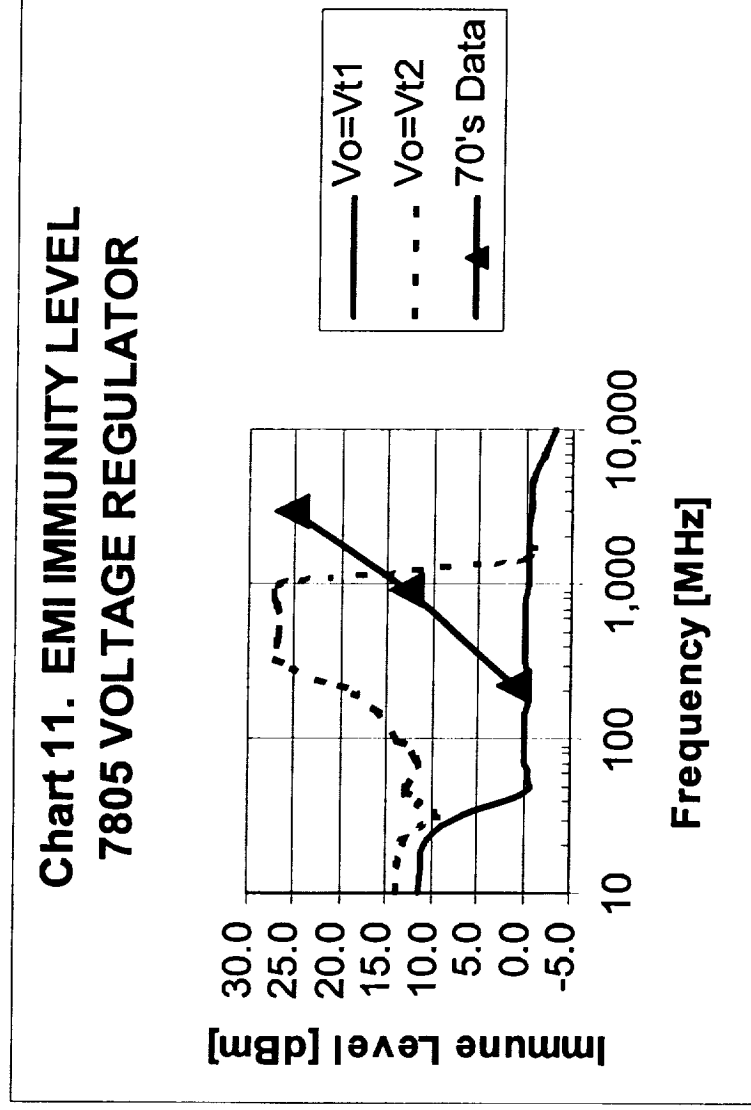


Chart 10. EMI IMMUNITY
74LS05 OPEN COLLECTOR INVERTER



7805 VOLT REG IMMUNITY



SEVENTIES CHIP SET

TTL:	7400, 7402, 7404, 7405, 7408, 7432, 7450, 7473, & 7479	9
CMOS:	4011A, 4011B, 4007A, 4007B, 4001A, & 4013A	6
Line	8830/8820, 9614/9615,	7
drvtr/rcvr:	55109/55107A, & 55110	
Op Amps:	741, 108A, 201A, 0042C, & 531	5
Voltage	(3-pin) 309, 320, 78M05,	5
Reg:	(8-pin) 300, & 305	
Comparators	306, 311, 339, 360, 710, & 760	6
:		
	TOTAL NUMBER TYPES	38